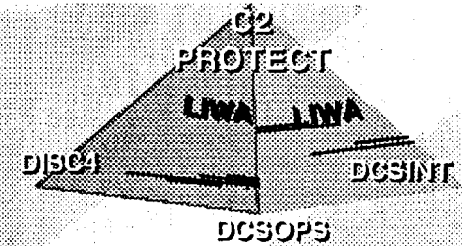




DEFENSIVE INFORMATION WARFARE



Command and Control Warfare Protect Overview

The Army's C2 Protect Program an In Process Review

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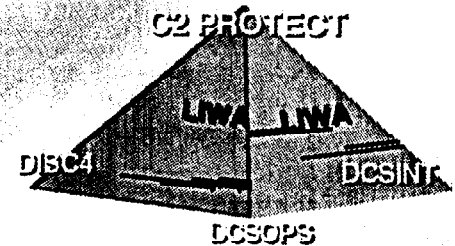
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13. ABSTRACT (Maximum 200 Words) This DISC4 briefing is a Command and Control Warfare (C2W) Protect Overview of the Army's C2 Protect Program. The purpose of the briefing is to discuss the background of C2 protect effort, the C2 protect library status, Discuss INFOSEC funding, C2 protect training, C2 protect Red Teaming, and the Army's C2 Protect Strategy.				
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Purpose

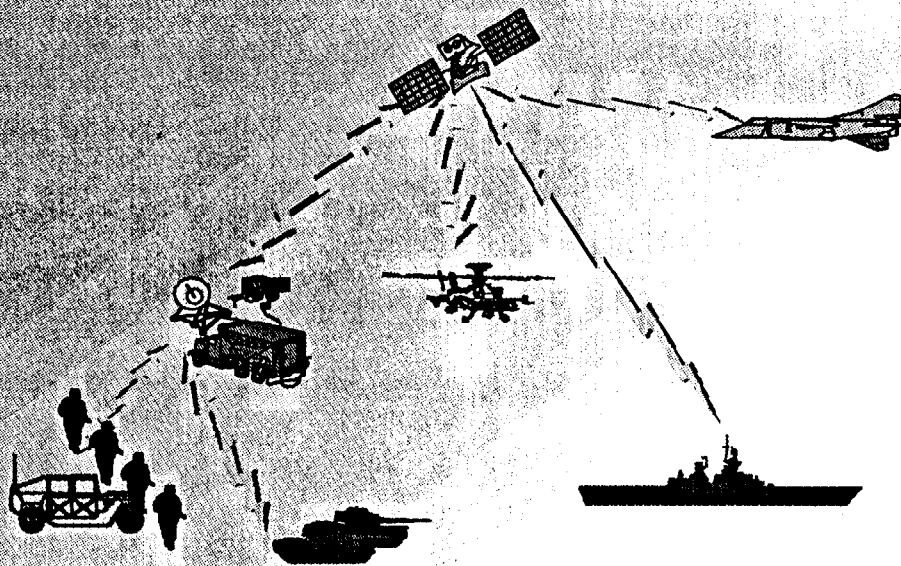
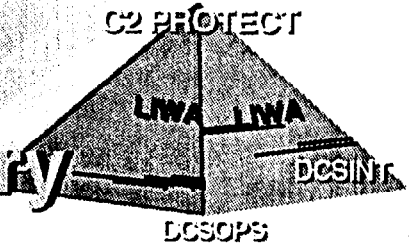


- Provide C2 Protect IPR
- Background of C2 Protect Effort
- C2 Protect Library Status
- Discuss INFOSEC Funding
- C2 Protect Training
- C2 Protect Red Teaming
- Army C2 Protect Strategy

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Force XXI The Army of the 21st Century



Redesign the Force

. . . Front to Rear

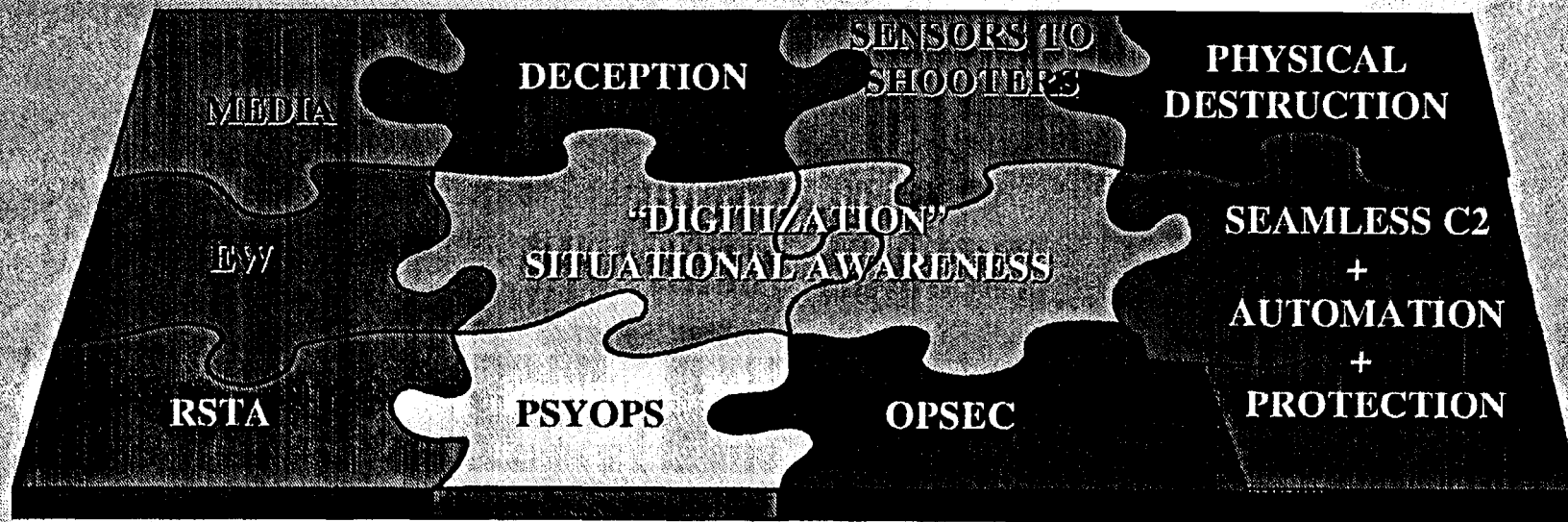
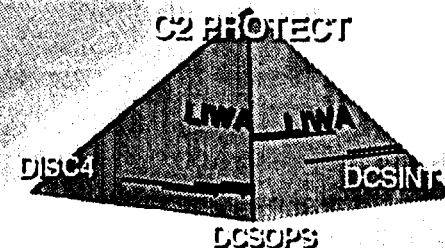
We will Create Learning Organizations

- Organized around information — not hardware
- Inherently versatile at every level
- Simultaneously execute, plan, recover—continuous operations
- Leverage skip echelon and split based operations
- Shared situational awareness, not the same map sheet, the same map

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Information Warfare An Army Perspective



FM 100-6 (Draft)

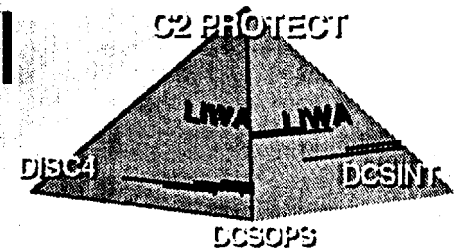
“INFORMATION OPERATIONS”

Continuous COMBINED ARMS OPERATIONS that enable and protect the commander's decision cycle while influencing an opponent's. Accomplished through command and control and intelligence operations, Information Operations are conducted across the full range of military operations.

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Command and Control Protect



Is This New ?

Old Security Disciplines Refocused

An Integrated Strategy

A Changing Paradigm

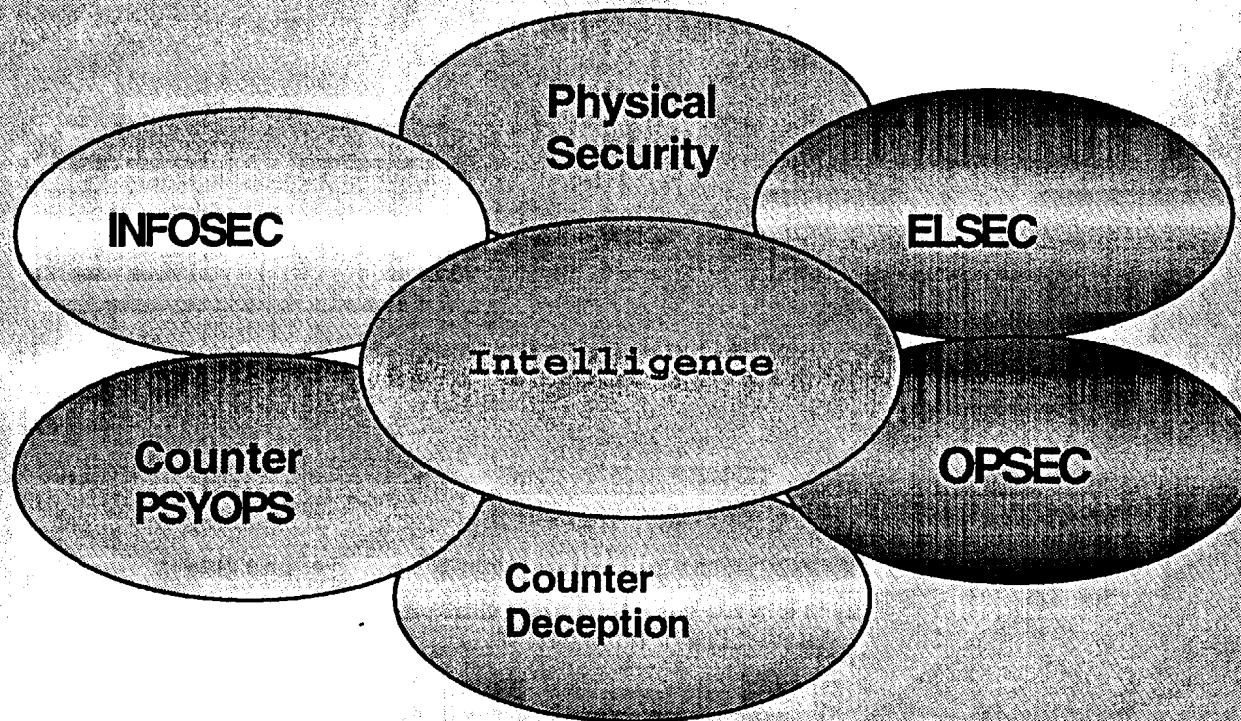
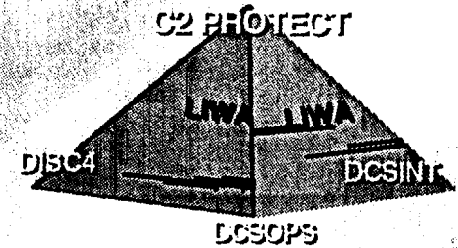
An Operational Tool for the Commander

A Combat Multiplier

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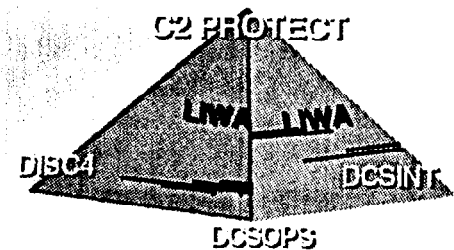
Components of C2 Protect



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C2 Protect Effort Background

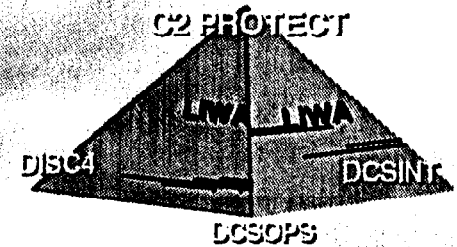


- DISC4 tasked to develop DIW Plan - NOV 94
- Army C2 Protect Working Group established JAN 95
- Army C2 Protect Library Concept established
- LIWA activated
- Army C2 Protect critical roles and missions requirements validated by Army Senior Leadership

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Purpose of Army C2 Protect Program

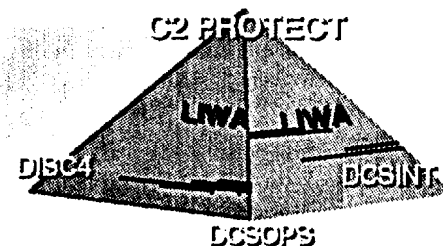


- Protect the Army's Portion of the Defensive Information Infrastructure (DII)
- Synchronize Army Activities in C2 Protect
- Identify Vulnerabilities and Constraints
- Define Army Staff and MACOM Roles for C2 Protect
- Floor Plan for C2 Protect Developments
- Plan for C2 Protect Resources

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Army C2 Protect Strategy

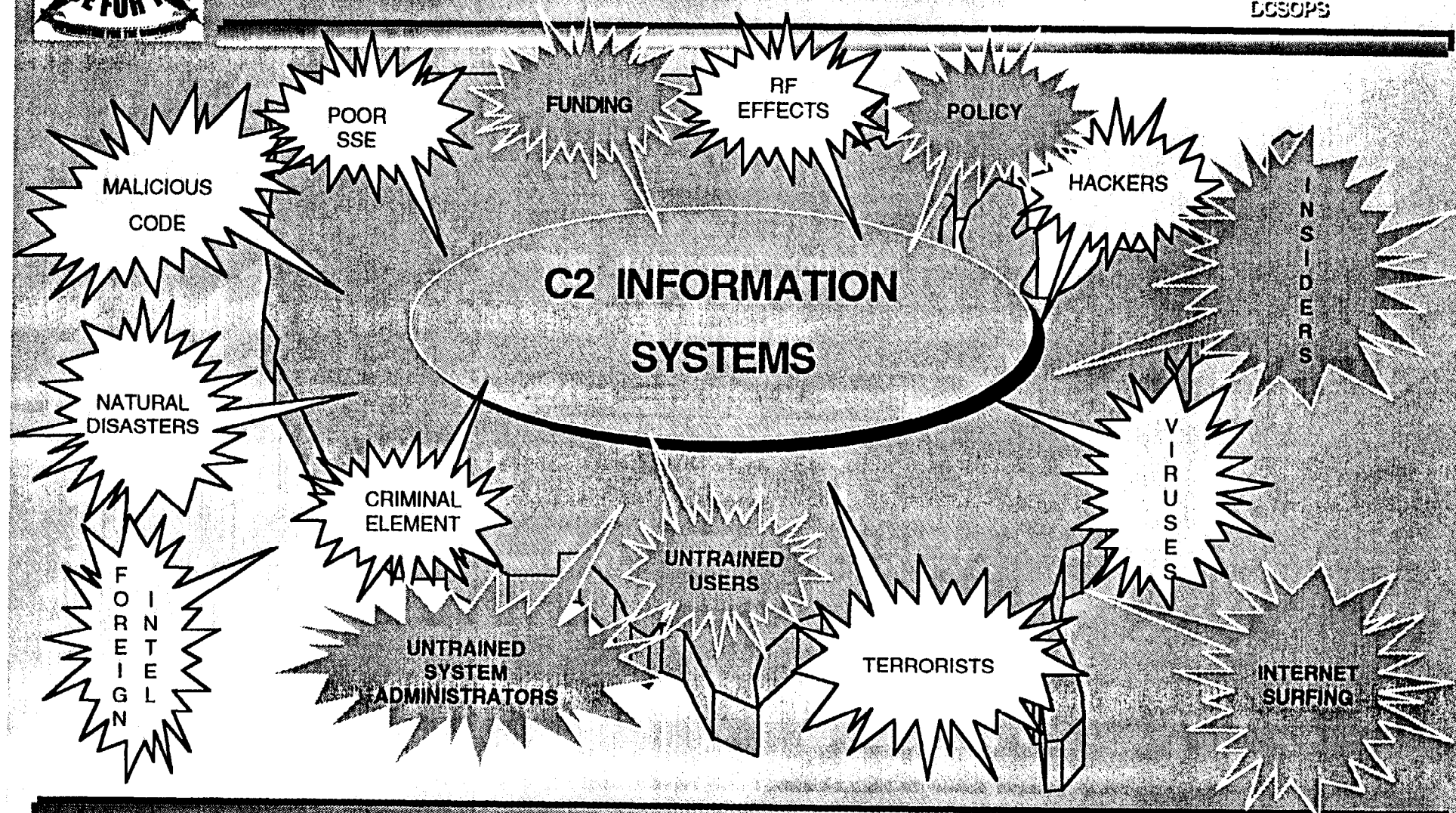
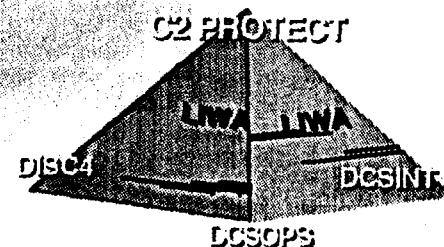


- Single Unified vision for the Army C4I community
- In consonance with the National and DOD strategy (JCS Pub 13)
- Reflects vision stated in the Army Enterprise Strategy
- Capitalize and leverage existing capabilities
- Integration of security and operational functions
- Integrated Offense/Defense
- Coordinated effort between Agencies at the National and Service levels

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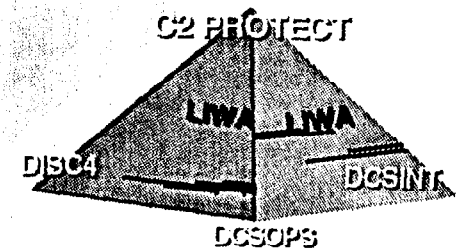
Threats and Vulnerabilities to C2 Information Systems



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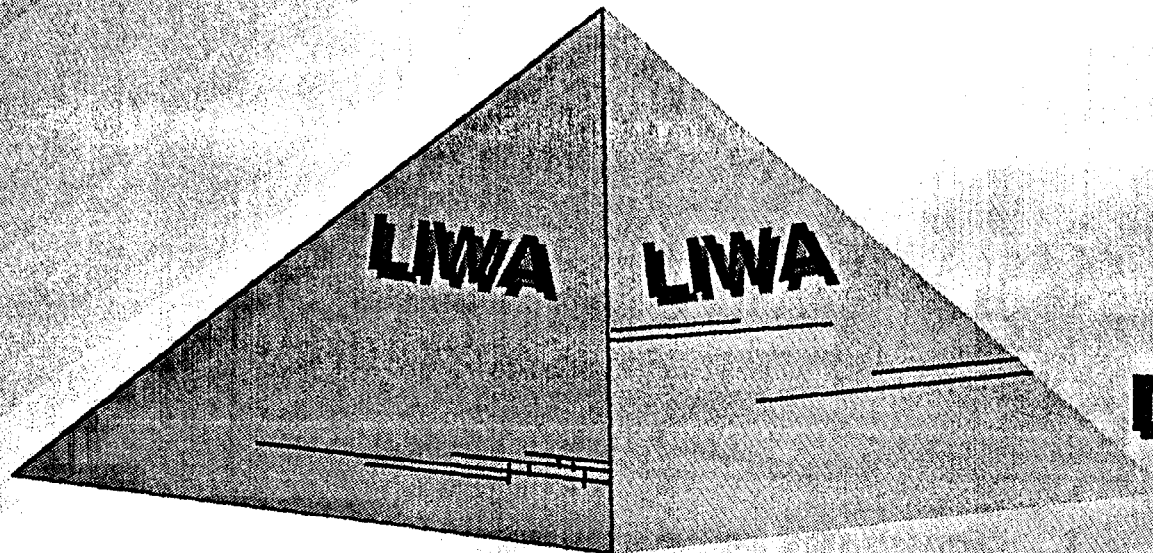


C2 Protect Triad



C2 PROTECT

DISC4



DCSINT

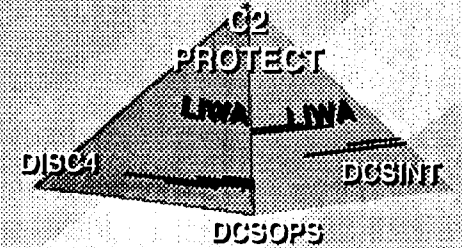
DCSOPS

Lead Developers and Signatures on all C2 Protect
Volumes

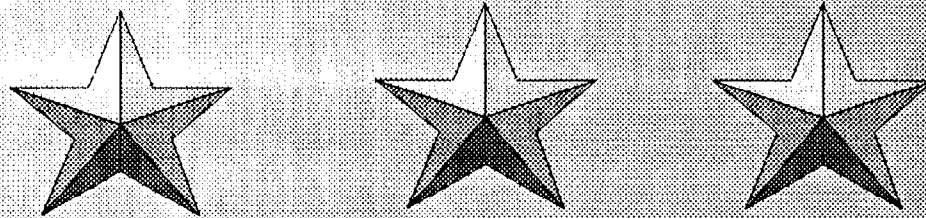
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DCSOPS C2 Protect Mission



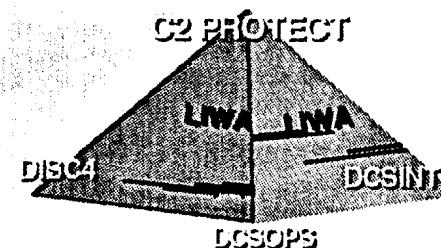
The DCSOPS is the organization which has proponentcy for Information Warfare and addresses force modernization issues related to Information Warfare. Operational issues concerning Information Warfare are handled within the Directorate for Operations, Readiness, and Mobilization. DAMO-FDN is responsible for the development and dissemination of Information Warfare Policy for the Army.



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DISC4 C2 Protect Mission



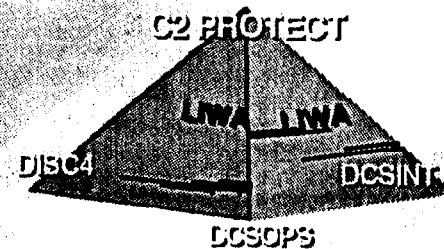
In coordination with DCSOPS and DCSINT, DISC4 is responsible for implementing procedural and material protective measures, to protect Command, Control, Communications, and Computers (C4 Protect).



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DCSINT C2 Protect Mission



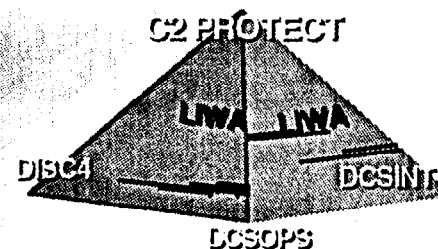
In coordination with DCSOPS and DISC4, DCSINT is the office responsible for threat definition, establishment of policy and integrating counter-intelligence support to protect command control communications and computers (C4 Protect)



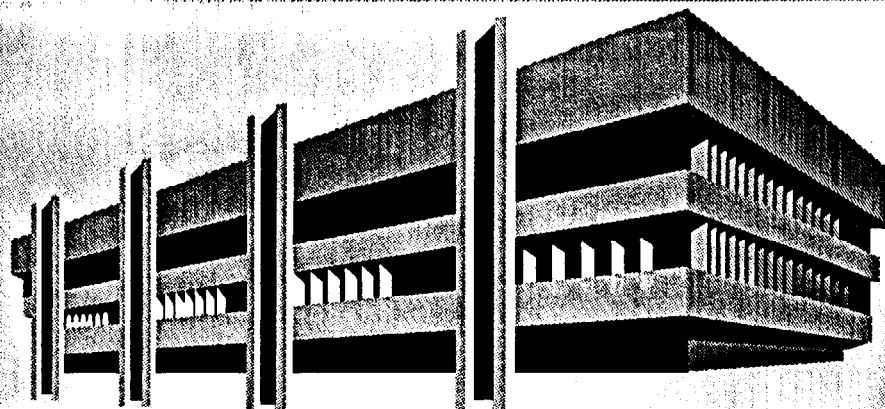
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Land Information Warfare Activity



“LIWA



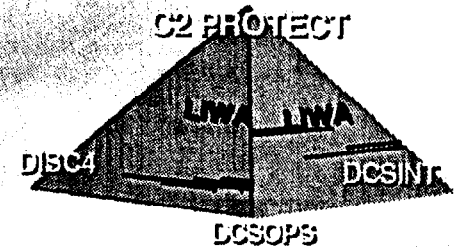
MISSION:

Provide DA level Information Warfare/Command and Control Warfare support to Land Components and separate Army commands to facilitate planning and execution of Information Operations. Coordinate with National, Joint, and Service IW/C2W centers to exchange and synchronize intelligence and information support across the operational continuum.

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Land Information Warfare Activity



**Act as Operational Focal Point for IW
Army Staff (DCSOPS/DCSINT/DISC4)
Joint, Service, and National Agencies
MACOMs and MSCs**



Arrange for and Coordinate Support to CDRs



Coordinate and Deploy Field Support Teams For
* CERT * Common Tools

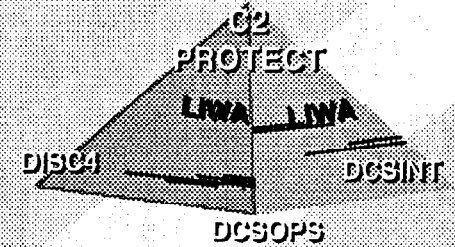


**Integrate Compartmented Programs with Other
Activities**

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RED TEAM

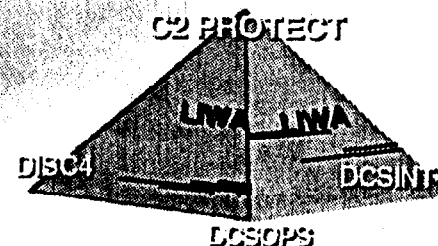


- LIWA coordinated, ADO lead
- Passive Red Teaming started during Roving Sands
- Active Red Teaming to be undertaken at TF XXI AWE
- Efforts underway to include DIW in Modeling and Simulations (SIGCEN)

C2 Protect - "Keeping The Highway Open and Secure For Force XXI"



Training and Awareness is Key to C2 Protect



“Our Troops must understand the threat and we must provide the leadership to minimize it”.

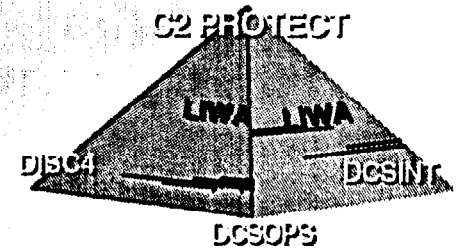
“We must integrate Information Warfare realism into training the force”.

LTG Guenther
HQDA, DISC4
29 Mar 95

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C2 Protect Training

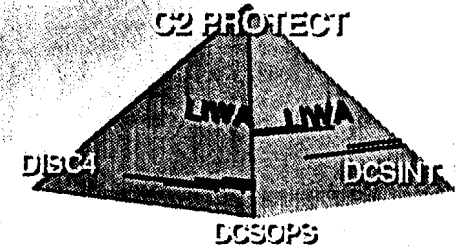


- CISS teaching non-service specific information security courses for system administrators
- INFOSEC to be taught as part of the SOBC and WOBC at Fort Gordon
- BOTTOM LINE: Training shortfalls are being addressed by HQDA (ODISC4)
- Pilot Course kicks off 30 OCT 95 @ GMU
- 1st Class scheduled @ Fort Huachuca - 4-8 DEC
- Developed by Army Management Engineering College Rock Island, IL

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Army C2 Protect Common Tool Set

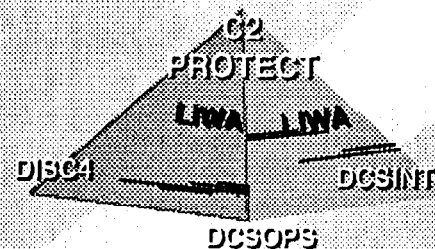


- Cooperative Effort
- Pentagon-to-Foxhole material developer (CECOM)
- LIWA is Army's functional manager
- Centralized configuration control
- Uses existing technologies (leverage of existing tools)
- Emerging technology
- Embedding tools in existing C4 Systems
- Short Term Phase - - - - - Long Term Phase

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Army C2 Protect CERT



- No current Army Capability
- Operational Concept for organic capability under development

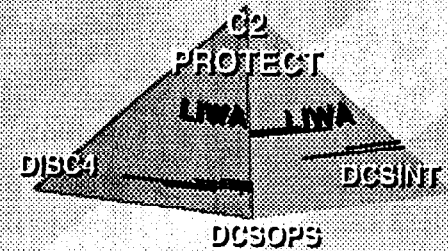
PROPOSED AND UNDER STUDY

- Four geographic locations co-located with APPOCs
- Staffed with Co-located USAISC and USAINSCOM resources
- 5th Signal Command being studied as a model for initial operations concept

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Army C2 Protect Risk Management

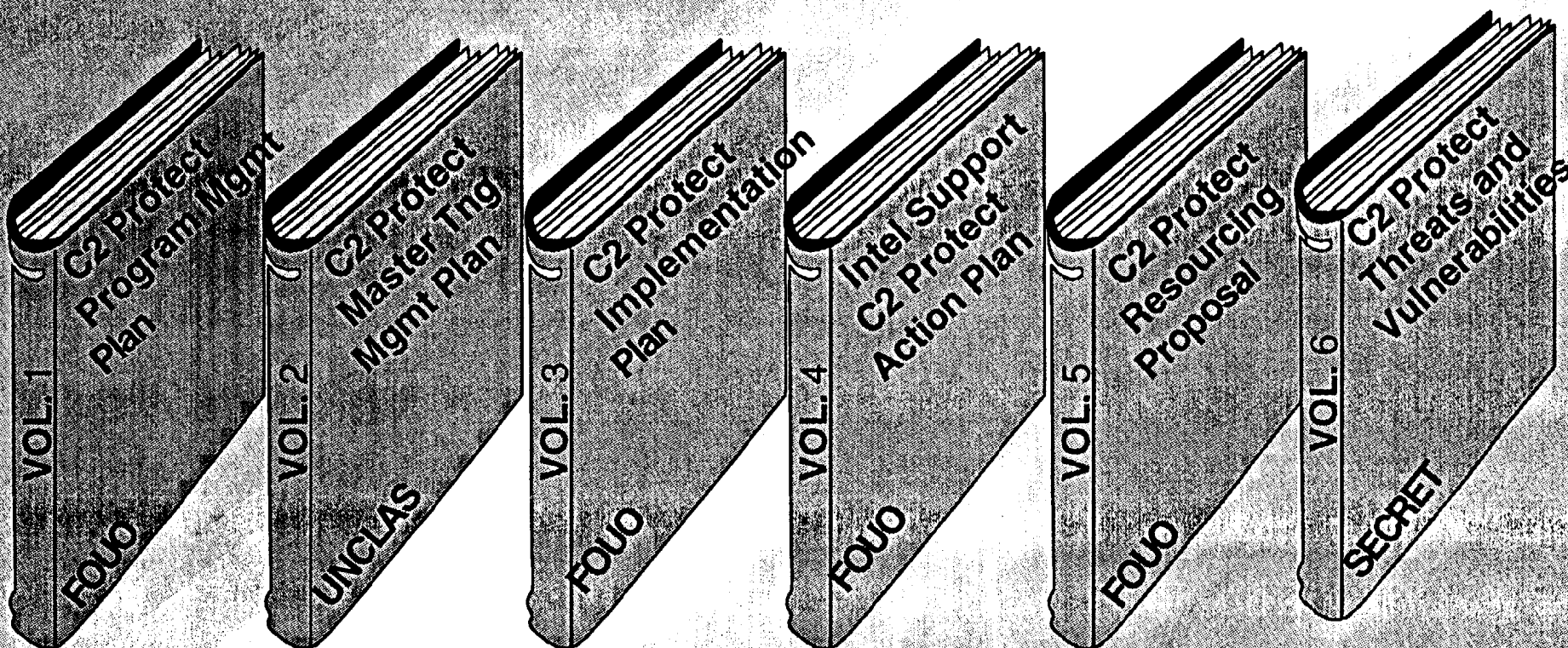
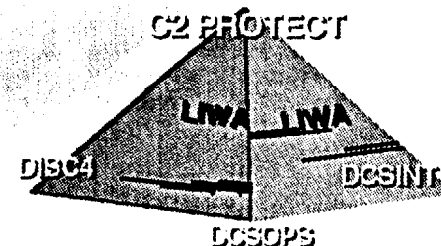


- Risk management is the foundation of the Army C2 Protect Program
- Risk management model is a combination of Service and OSD models (Hotard)
- ATTP, technology integration and investment decision will require Risk Management
- Risk Management into Life Cycle Management
- Risk Management drives COTS, GOTS and development efforts for C2 Protect/C4I Systems

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Army C2 Protect Library



C2 Protect Planning Evolves into AR XXX-
XX

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Summary



- Funding, Resourcing and Intelligence Integration Remain Greatest Challenges
- Focus on Education, Training, Awareness & TTP
- C2 Protect Roles and Responsibilities are Defined
- C2 Protect Program Management Plan Staffed for Approval
- Risk Management

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